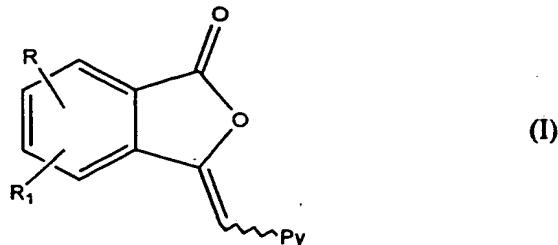


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Claims

1) A process for the preparation of pyridinylidene-phthalides of formula

5



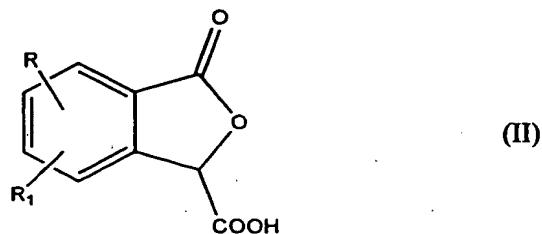
wherein

10 Py represents a 2, 3 or 4-pyridinyl group optionally substituted by one or more substituents selected from halogen nitro, cyano, oxo and carboxy;

R and R₁, which can be the same or different between them, represent hydrogen, C₁-C₆ alkyl or a group OR₂ wherein R₂ represents a linear or branched C₁-C₆ alkyl, a C₄-C₇ cycloalkyl or a C₁-C₆ polyfluoroalkyl;15 The bond $\sim\sim$ indicates both the isomers E and Z;

which comprises the reaction of a compound of formula

20

wherein R and R₁ have the meanings above reported;

with an aldehyde of formula



25 wherein Py has the above reported meaning;

by heating of the mixture of the compounds of formula II and III in the presence of an anhydride and optionally in admixture with a suitable solvent.

2) A process according to claim 1 wherein Py represents a dihalosubstituted 4-pyridinyl group.

30 3) A process according to claim 2 wherein Py represents a 3,5-dichloro-4-pyridinyl group.

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4) A process according to claim 1 wherein one or both between R and R₁ represent OCH₃.

5) A process according to claim 1 wherein the compounds of formula III are employed with respect to the compounds of formula II in a molar ratio from 0,5 to 4.

5 6) A process according to claim 5 wherein the compounds of formula III are employed with respect to the compounds of formula II in a molar ratio from 0,8 to 1,5.

7) A process according to claim 6 wherein the compounds of formula III are employed with respect to the compounds of formula II in a molar ratio from 0,9 to 1,1.

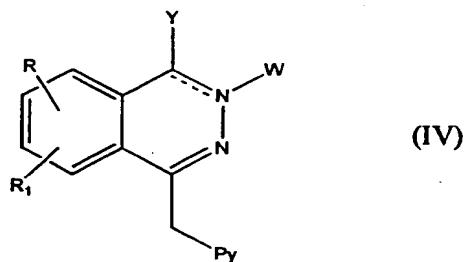
8) A process according to claim 1 wherein the anhydride is an organic anhydride.

10 9) A process according to claim 8 wherein the anhydride is acetic anhydride.

10) A process according to claim 1 wherein the anhydride is used in an excess.

11) A process for preparing phthalazines of formula

15



wherein

R, R₁ and Py have the above reported meanings;

20 ----- is a single or double bond;

Y represents two hydrogen atoms or a group =O when ----- is a single bond,
or when ----- is a double bond Y is hydrogen, cyano, (C₁-C₄)-alkoxycarbonyl, amido, optionally substituted aryl or heterocyclyl, (C₁-C₈)-alkyl, (C₁-C₈)-cycllamino;

25 W is absent when ----- is a double bond or, when -----

is a single bond, it represents

a) hydrogen;

b) (C₁-C₆)-alkyl optionally substituted by aryl, heterocyclyl or by a group COR₅
wherein R₅ is hydroxy, (C₁-C₄)-alkoxy or hydroxyamino;

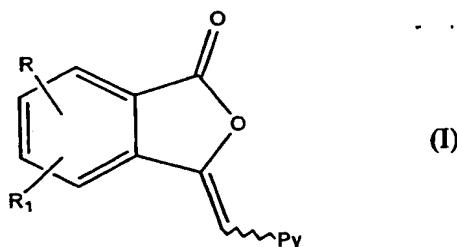
30 c) -COR₆ wherein R₆ is hydrogen, aryl, aryl-(C₁-C₆)-alkyl, optionally alkylated or

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monohydroxylated amino, hydroxy, (C₁-C₄)-alkoxy, carboxy, (C₁-C₄)-alkoxycarbonyl, HN=C—NH₂, or (C₁-C₄)-alkyl optionally substituted by a heterocycle;

d) (C₁-C₄)-alkylsulfonyl;

5 which comprises the preparation of the intermediate of formula I



10

wherein

R, R₁ and Py have the above reported meanings;

according to the process of claim 1.